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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,350	12/18/2001	Michael N. Pollak	28758.57	4785

7590 07/07/2005

Diagnostic Systems Loboatories Inc.
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EXAMINER	
HOLLERAN, ANNE L	

ART UNIT	PAPER NUMBER
1643	

DATE MAILED: 07/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/025,350	POLLAK ET AL.	
	Examiner	Art Unit	
	Anne Holleran	1643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed 3/7/2005 is acknowledged. Claims 21-27 are pending and examined on the merits.

2. The terminal disclaimer filed on 3/7/2005 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of U.S. Patent 6,410,335, has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections Withdrawn:

3. The rejection of claims 21-27 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6,410,335 is withdrawn in view of the terminal disclaimer filed 3/7/2005.

Claim Rejections Maintained and New Grounds of Rejection:

Claim Rejections - 35 USC § 112

4. Claims 21-27 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for methods of predicting a doubling of risk for prostate cancer for every 100 ng/ml increase in IGF-I levels, does not reasonably provide enablement for the full scope of the claimed methods, wherein any concentration above a reference level is deemed to indicate an increased risk for prostate cancer. The specification does not enable any person skilled in the art

to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Factors to be considered in determining whether undue experimentation would be required to practice the full scope of the claimed inventions are: 1) quantity of experimentation necessary; 2) the amount of direction or guidance presented in the specification; 3) the presence or absence of working examples; 4) the nature of the invention; 5) the state of the prior art; 6) the relative skill of those in the art; 7) the predictability or unpredictability of the art; and 8) the breadth of the claims. See In re Wands, 858 F.2d at 737, 8 USPQ2d at 1404 (Fed. Cir. 1988).

The specification provides data demonstrating a relationship between increased IGF-I levels and risk of prostate cancer. This is done by collecting blood samples from men before a diagnosis of prostate cancer and then measuring IGF-I levels of the blood samples after a diagnosis of prostate cancer is determined. IFG-I levels from matched controls (men who never developed prostate cancer by the end of the study period) were also measured. The levels of IGF-I were divided into four quartiles, and a statistical analysis demonstrated that there was a higher incidence of prostate cancer in the quartiles with higher IGF-I levels (quartiles 2-4). Therefore, or this particular study, it appears that IGF-I levels of the lowest quartile, quartile 1, were used as the reference levels. However, others have used a combination of the first two quartiles as the reference group (see Wolk, Journal of the National Cancer Institute, 90(12): 911-915, 1998; cited in IDS). This practice was questioned by Lash (Lash, Journal of the National Cancer Institute, 90(23): 1841, 1998; cited in IDS), because it appears that the combination of quartiles may have been done to achieve statistical significance. Therefore, there appears to be some question in the art as to the appropriate method for determining a reference level for IGF-I,

when using IGF-I as a marker for prostate cancer prognosis. Also, found in the art is the question of whether measurement of IGF-I is a useful marker for prognosis of prostate cancer. Cohen shows that 3 out of 6 studies show either no significance between IGF-I levels of prostate cancer patients and control subjects or a decrease of IGF-I levels with prostate cancer (see Table 1, Cohen, Journal of the National Cancer Institute, 90(12): 876-879, 1998 and also Finne, Journal of Clinical Endocrinology & Metabolism, 85(8): 2744-2747, 2000).

Applicants argue that the teachings of the specification are commensurate in scope with the scope of the claims, because the specification teaches that the data demonstrate a linear trend between increases in IGF-I levels and incidence rates of prostate cancer. However, a demonstration of a linear trend does not indicate whether, for example, there is a significant difference between quartile 1 and quartile 2. A linear trend only is evidence that, as a whole, there is a relationship between an increase in IGF-I levels and prostate cancer risk (the significant difference may only exist between quartile 1 and quartile 4, for example). Therefore, it does not appear that applicants arguments are relevant to whether it would be a matter of routine experimentation by one of skill in the art to determine a reference level, or to determine the level of change above a reference level that correlated with any amount of risk of prostate cancer. Because there appears to be a question in the art as to the appropriate statistical methods and because some workers in the field have found either no association or a reverse association between an increase in IGF-I levels and prostate cancer, and because the claims are broadly drawn to methods of first determining an appropriate reference level and include any amount of difference above this reference level, the breadth of the claims do not appear to be commensurate in scope with the scope of the claims.

5. Claims 21-27 remain rejected under 35 U.S.C. 102(a) as being anticipated by Mantzoros (Mantzoros et al, British Journal of Cancer 76(9): 1115-1118, 1997) for the reasons of record.

Applicants' arguments have been considered, but fail to persuade. Applicants assert that because the specification teaches a prospective study to determine the association between IGF-I levels and prostate cancer incidence, whereas Mantzoros teaches data derived from patients already diagnosed with prostate cancer, that Mantzoros fails to teach the claimed methods. This is not found persuasive, because the claims are not drawn to methods determining whether an association exists between the IGF-I levels and prostate cancer incidence, but are drawn to methods determining risk in an individual. Mantzoros performs the steps of the claimed methods and also teaches a statistic that may be used to interpret a blood test result. Therefore, Manzoros teaches methods that are the same as that claimed.

AU 7/6/05

The prior rejection is repeated below:

Mantzouros teaches a method of predicting risk of prostate cancer where concentrations of IGF-I are measured in healthy individuals and where IGF-I concentrations are measured in test individuals (happen to have either prostate cancer or BPH), and where a risk of prostate cancer is determined by comparing IGF-I levels to a reference. Mantzouros is able to determine that an increase in 60 ng/ml leads to a 91 percent increase in risk of prostate cancer. Thus, Mantzouros teaches methods that are the same as that claimed.

Conclusion

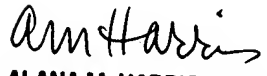
No claim is allowed.

Any inquiry concerning this communication or earlier communications from the Office should be directed to Anne Holleran, Ph.D. whose telephone number is (571) 272-0833. Examiner Holleran can normally be reached Monday through Friday, 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Helms, can be reached at (571) 272-0832.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at telephone number (703) 571-1600.

Anne L. Holleran
Patent Examiner
July 6, 2005



ALANA M. HARRIS, PH.D.
PRIMARY EXAMINER